birds, and he had also ascertained, that several African species not only devoured insects with eagerness, but also caught them with great dexterity. A specimen of the *Cercopithecus sabæus*, observed by him, was very fond of the common cockroach, and upon being furnished with a daily supply of that insect, actually recovered perfect health after symptoms of disease had made their appearance. This individual caught cockroaches with surprising adroitness, and when one escaped, he would watch for it to reappear with the patience and quiet of a cat.

Mr. C. stated as his opinion, that all the African monkeys (and perhaps all others) were insect eaters, and to a person aware of the large number and enormous size of many of the species of Coleoptera of Africa, it would appear a reasonable supposition that those insects were eaten by monkeys.

All monkeys in confinement should be furnished with animal food, either insects, or raw mutton, or beef, cut into thin strips resembling worms, which he had found to be the best substitute.

Mr. C. stated that much of the disease of those animals in captivity, was doubtless to be attributed to the fact, that they were invariably, as far as he had observed, restricted to vegetable food.

February 8th, 1848.

Vice President Morton in the Chair.

The Chairman read a letter addressed to him by Dr. R. W. Gibbes, dated Columbia, S. C., January 27th, 1848, enclosing another from Prof. Agassiz, addressed to Dr. Gibbes, dated Charleston, December 23d, 1847, and coinciding with him in the opinion that the *Basilosaurus* of Harlan, or *Zeuglodon cetoides* of Owen, is generically distinct from the species described by Dr. Gibbes under the generic name of *Dorudon*, and published in these Proceedings. The following is a portion of the letter of Professor Agassiz :—

"I have examined the interesting fossil remains of Cetacea which you left with me yesterday. On close comparison, I have satisfied myself that Basilosaurus or *Zeuglodon cetoides*, is generically distinct from your second species, which you first described under the generic name of Dorudon. The hollowness of the teeth cannot be indicative of a mere young age of that animal, as the form of the lower jaw is altogether different in the two animals: Zeuglodon having a continuous fissure connecting the alveoli, and another groove along the edge of the jaw-bone, which are wanting in Dorudon. Besides, the posterior branch of the jaw is also different, the two lamellæ of the bone rising to the same height, and much higher in Zeuglodon, than in Dorudon, which has a deep depression upon its external surface, owing to the difference in the height of the two laminæ. Again, Zeuglodon has deep pits upon the external surface of the lower jaw, shewing that the teeth of the upper jaw left an impression upon the lower, resting upon it, as in the crocodiles of our days, when the mouth is shut. The other portions of the jaws of Dorudon are from the upper jaw, the one with one tooth being from the left side, the other with three teeth being from the right side. I am therefore sorry that you have withdrawn your genus, in deference to the suggestion of Prof. Owen, as he did not insist upon their generic identity, but rather alluded to the close affinity of these remains.

The isolated tooth, though imperfect, is highly interesting, as indicating a new genus of Sauroid Cetacea, allied to Megalosaurus by the form of the tooth, but differing by the form of its root. I would propose to call it *Sauro-cetus Gibbesii*. It will easily be distinguished from the fang of Dorudon, by its great flatness and acute serrated edge. In the form of these anterior teeth there is another generic difference between Zeuglodon and Dorudon, worth mentioning; in the former being blunt and short, whilst Dorudon has them acute and sharp upon the edges.

I thank you for the opportunity you have afforded me to examine these highly

interesting remains. As soon as I reach Boston, I shall avail myself of the opportunity of Dr. Warren's collection, to ascertain whether the Zeuglodon of South Carolina is specifically identical with the large species of Alabama, which I begin to doubt."

A letter was read from the Rev. Thomas S. Savage, addressed to Dr. Hallowell, dated Natchez, Miss., January 15th, 1848, stating that he had drawn up some facts connected with the habits of three of the specimens of Natural History from Africa, lately presented by him to the Society, and had forwarded them with sketches of two of the serpents in a recent state, with some account of them as connected with the superstition of the natives of that part of Africa.

A letter from William Thompson, Esq., addressed to Dr. Griffith, dated Donegal Square, Belfast, January 11th, 1848, was read, acknowledging the receipt of a donation of shells from Dr. Griffith and the Academy, and returning his thanks therefor; also stating that he was preparing to forward in return, a number of species of *Echinodermata* and *Mollusca*, and of *Algæ*, about one hundred and fifty species; and also offering to transmit, if desired, specimens of Irish *Crustacea* and *Zoophytes*, also *Cirrhipoda*, *Annelidæ*, and *Amorphozoa*, and fossils from the green sand formation of his vicinity.

A letter was read from Dr. Charles T. Jackson, addressed to the Academy, dated Boston, January 20th, 1848, relating to the proposed erection in Paris of a monument to M. Etienne Geoffroy St. Hilaire, and enclosing a printed circular on the subject, dated Paris, April 30th, 1847, signed by Dumeril, Arago, Dumas, Serres, L. Elie de Beaumont, Jomard, Regnault, and Roche, and soliciting the co-operation of scientific societies and individuals in this country.

Professor Haldeman made some remarks on the fibrous lava of the Hawaian Islands, and referred to the formation of a similar material in anthracite blast-furnaces. When the hearth of the furnace is somewhat chilled, and the slag not highly fluid, if the blast is allowed to escape over it, it will be drawn out into long threads, which form bunches resembling flax. According to Mr. Dana, the fibrous lava (which Prof. H. proposes to call *Stypnite*,) is formed from masses of fluid lava cast into the air and struck by the wind.

Dr. Morton offered some observations of the Bushman Hottentot boy, now in this city, and who was brought here under the kind and paternal auspices of Capt. Chase, United States Consul at the Cape of Good Hope. This gentleman has expressed his intention to be present, with the boy, at a future meeting of the Academy; and in view of this arrangement, Dr. M. stated that he should confine his remarks to a few very interesting points. The boy is supposed to be about eighteen years of age, is three feet eleven inches in height, and of slender make. His complexion is that of a *dried leaf*, as described by travellers among these people; the head is elongated, flattened on the coronal region; full behind, and rather broad between the parietal bones. The face does not project; the nose is so flat as scarcely to be seen in profile; the cheek-bones wide, and the forehead low but not receding. The hair is arranged in delicate tufts, of a straight and cylindrical form, each tuft being inserted separately into the scalp, so that the intervening light skin presents a strong contrast with the black hair. If these tufts are examined, the hairs composing them are found to be spiral, and so intimately blended as to give the whole fasciculus a compact appearance, and an extraordinary flexibility. The hairs are very fine; but Dr. M. observed that his friend Dr. Meigs had called

his attention to the remarkable fact, that they are flattened, like tape, and as seen under a power of forty or fifty diameters of Chevallier's microscope, each hair has the precise appearance of an ordinary steel watch-spring. Dr. M. had repeated the experiments of Dr. Meigs, with that gentleman's assistance, using one of Oberhauser's microscopes, with the same result. Dr. M. also adverted to a prominence at or near the top of the sacrum, which, so far as he could judge from a very imperfect examination of it, as covered with the boy's usual dress, seems to be a prolongation of the spinous and transverse processes over the region in question; and which would appear to be the osseous frame-work of that fatty cushion which is of proverbial occurrence in the Hottentot women. Dr. M. expressed a hope that he might yet be able to examine this structure more carefully, and report the facts to the Society. The boy's head corresponds, in most of its developments, to those of two Hottentot skulls in Dr. M.'s collection, sent him by Mr. John Watson, of Cape Town. The mental and moral questions connected with the history of this youth, possess an extreme interest, but can only be correctly judged of after more extended inquiries.

Mr. Ashmead made some remarks on what he considered a peculiarity in the calcareous spar, from the Rossie Lead mines, in New York.

The general form presented by fractured crystals of calcareous spar is rhomboedrous. Cleavage is perfect parallel to the primary planes of a rhomb, and is therefore three-fold.

Some time since, while engaged in reducing to convenient size for the cabinet, some specimens of double refracting spar from the above locality, he observed that some of the fractured crystals were susceptible of mechanical division in different directions from those of the planes of a rhomboedron; this induced him to slice off the laminæ wherever he found cleavage was perfect, and by proceeding with this sort of dissection, the result was a nucleus, of a perfectly geometrical form. It is a solid, bounded by six isosceles triangular planes of similar lustre, or two obtuse three-sided pyramids, placed base to base; it has but one axis passing through opposite solid angles; assuming the axis to be vertical, the base is an equilateral triangle. As the faces are not parallel, but inclined to each other, it is susceptible of perfect cleavage in six directions.

The solid angle of the apex is similar to the obtuse solid angle of the rhomb, therefore, by truncating the alternate solid angles of the rhomb, this solid is produced.

On motion of Dr. Leidy, the Corresponding Secretary was requested to make some further inquiry of Dr. Joel Y. Shelley, of Berks county, respecting the locality of certain fossils from his vicinity, and the depth at which they were found by him.

February 15*th*, 1848.

Vice President Morton in the Chair.

A letter was read from Dr. William Maxwell Wood, U. S. N., dated Philadelphia, February 11th, 1848, acknowledging the receipt of his notice of election as a Correspondent.

A letter was read from the Secretary of the Linnean Society of London, dated Soho Square, December 30th, 1847, acknowledging the receipt of recent numbers of the Proceedings of the Academy.

A supplement to a communication presented at the meeting of February 1st, 1848, entitled "Descriptions of some new plants collected by Mr. William Gambel in the Rocky Mountains and California, by Thomas Nuttall, F. L. S.," was read and referred to the same Committee, viz., Dr. Bridges, Mr. Gambel, and Dr. Zantzinger.